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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,667

04/16/2004

Koji Hiramatsu

D-1595

8507

7590

08/07/2006

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EXAMINER

HAUGLAND, SCOTT J

ART UNIT

PAPER NUMBER

3654

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/825,667

Applicant(s)

HIRAMATSU, KOJI

Examiner

Scott Haugland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiramatsu et al (U.S. Pub. No. 2002/0070307) in view of Fujii et al (U.S. Pat. No. 6,416,008).

Hiramatsu et al discloses a seat belt retractor comprising: a spool 4 for winding and unwinding the seat belt, a locking mechanism 6 having a locking member 14 attached to the spool to be rotatable therewith in a normal state and capable of locking the spool in an emergency state, a torsion bar 7 disposed between the spool and the locking member for absorbing kinetic energy of a passenger when the spool rotates in a direction that the seat belt is withdrawn relative to the locking member in an emergency situation, a stopper 16 screwed in a shaft of the locking member to be movable in an axial direction along the shaft of the locking member when the spool rotates relative to the locking member, the stopper locking the spool when it engages the locking member, and an energy-absorption member 20 disposed on one of the stopper and the locking member and situated between the stopper and the locking member for shear-

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deformation when the stopper moves in the axial direction along the shaft of the locking member. The apparatus includes a tongue and buckle for connecting seat belt ends.

Hiramatsu et al does not disclose an energy-absorption pin member in the stopper or locking member or a cutter for cutting it.

Fujii et al teaches providing a seat belt retractor with an energy-absorption pin member 20, 21, 31, 32, 33 for absorbing energy by shear deformation upon rotation of locking member 14 relative to spool 4. Fujii et al teaches separate cutters having edges with acute angles for shearing energy absorption members (Figs. 6(d), 8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Hiramatsu et al with a energy-absorption pins in the stopper 16 and locking member 14 as taught by Fujii et al and separate cutters to provide improved load limiting characteristics since placing the pin between the stopper and locking member would obviously have substantially the same effect as placing the pin directly between the locking member and spool due to the rotation of the spool and stopper together.

With regard to claim 5, it would have been obvious to provide Hiramatsu et al with a cutter having an edge having an acute angle as taught by Fujii et al to provide consistent shearing forces.

With regard to claim 6, it would have been obvious to make the pin member project essentially radially out of the stopper and locking member due to their concentric arrangement.

### ***Response to Arguments***

Applicant's arguments filed 5/22/06 have been fully considered but they are not persuasive.

Applicant argues that Hiramatsu et al does not suggest the pin structure recited in the claims. However, Fujii et al teaches providing a seat belt retractor with energy absorbing pins that undergo shear deformation and cutters for shearing the pins. The pins are located in a belt spool and locking member so that relative rotation of the spool and locking member causes shearing of the pins. This suggests providing Hiramatsu et al with pins between the stopper 16 which rotates with the belt spool and the locking member 14.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tandetzke (U.S. Pat. No. 3,881,667) is cited to show a seat belt retractor having a threaded stopper connected to a belt reel by a shear pin.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The addition of the limitation to claim 1 requiring the energy-absorption member to be a pin in the stopper or locking member and configured for shear-deformation proximate a periphery of the stopper or locking member necessitated the new ground of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

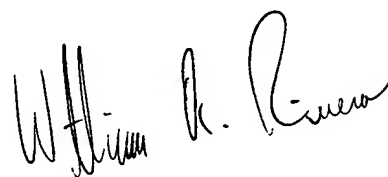
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*sjh*  
sjh  
8/1/06



**WILLIAM A. RIVERA  
PRIMARY EXAMINER**